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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/717,635	11/21/2003	Kweon Son	9988.067.00-US	9128

7590 10/24/2006  
Song K. Jung  
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Washington, DC 20006

EXAMINER

PATEL, RITA RAMESH

ART UNIT	PAPER NUMBER
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1746

DATE MAILED: 10/24/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/717,635

Applicant(s)

SON, KWEON

Examiner

Rita R. Patel

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 21 November 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-8 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-8 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 21 November 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
- 1) ☒ Certified copies of the priority documents have been received.
  - 2) ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - 3) ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

## DETAILED ACTION

### *Election/Restrictions*

Claims 9-11 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected washing machine apparatus group, there being no allowable generic or linking claim. Election was made **without** traverse in the reply filed on 8/8/06.

### *Priority*

Acknowledgement has been made of applicant's claim for priority under 35 U.S.C. 119; this application claims the benefit of Korean Application No. 10-2002-0073605 filed on November 25, 2002.

### *Abstract*

Applicant is reminded of the proper language and format for an abstract of the disclosure.

The abstract should be in narrative form and generally limited to a single paragraph on a separate sheet within the range of 50 to 150 words. It is important that the **abstract not exceed 150 words in length** since the space provided for the abstract on the computer tape used by the printer is limited. The form and legal phraseology often used in patent claims, such as "means" and "said," should be avoided. The abstract should describe the disclosure sufficiently to assist readers in deciding whether there is a need for consulting the full patent text for details.

The language should be clear and concise and should not repeat information given in the title. It should avoid using phrases which can be implied, such as, "The disclosure concerns," "The disclosure defined by this invention," "The disclosure describes," etc.

***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claim 5 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Applicant claims in lines 1-2 of claim 5, "the predetermined rate is incremented according to data stored in the lookup table" but it is unclear how the data stored in the lookup table is used for such incrementing. Is the lookup table a textbook? Is the lookup table a computer operatively used with the machine? Is the lookup table a single value or multiple valued references?

***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1-7 are rejected under 35 U.S.C. 102(e) as being anticipated by Lee et al. herein referred to as "Lee" (US Patent No. 7,059,002).

Lee teaches a dehydration control method of a drum washing machine; in sequence, after the cleaning process and uniforming process of the drum washing

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machine are finished, a rotational speed of the drum is accelerated and maintained at a first rotational speed (L1) at about 100~108 rpm (col. 4, lines 31-45). When the drum maintains the first rotational speed (L1) in rotation, first RPM variation of the driving motor 70 is measured as shown at step S30. This reads on applicant's claim for executing a dewatering step and accelerating a motor to rotate a drum according to a predetermined rate in response to said dewatering step.

First eccentricity (I) of the laundry is grasped according to the measured first RPM variation, and the measured first eccentricity (I) is compared with preset first reference eccentricity (S1) as shown at step S40 (col. 4, lines 46-52). In judging result, when the measured first eccentricity (I) exceeds a permitted limit, the rotation of the drum is stopped. Lee teaches accelerating the motor from a zeroed state to a predetermined rotational speed range; this reads on applicant's claim for detecting if the predetermined rate exceeds a first value but is less than a second value, and whether a state of vibration exists with respect to the drum rotated according to the predetermined rate.

Eccentricity of a washing machine is monitored by Lee. Eccentricity of such a machine is a known vibratory function; eccentricity exhibited by the apparatus is a precursor to greater, more violent eccentric motion which leads to vibrations. Lee teaches monitoring such a washing machine for eccentricity which inherently anticipates observation of excessive vibration by the apparatus. Lee teaches that because vibration and noise occur due to the eccentricity occurrence, internal parts of the washing machine may be damaged, and dehydration performance of the washing

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machine may be lowered (col. 2, lines 33-36). Furthermore, Lee adheres to the commonality that vibrations are a function of eccentricity and are important to monitor because when the drum is rotated at high speed in the dehydrating process and the laundry is eccentrically placed in the drum, vibration and noise occur, various parts installed inside the washing machine may be damaged or dehydration performance may be lowered (col. 1, lines 23-27). To avoid damaging the apparatus or performance of the machine, it is abundantly clear that minimizing excessive vibrations is necessary. Eccentricity is a commonly known way in the art to more delicately and precisely watch vibratory movement that may occur during washing and thus, supporting Lee's teaching for monitoring vibratory movement of the washing apparatus.

Lee further teaches that when the first eccentricity exceeds a permitted limit, the rotation of the drum is stopped, and the uniforming process is re-performed. Thereafter, a second eccentricity is measured and the process is repeated (col. 5, lines 27-34). This reads on applicant's claims for repeating the accelerating step until a desired dewatering speed is reached.

### ***Claim Rejections - 35 USC § 103***

Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over Lee as applied to claims above.

Lee teaches the claimed invention, however, fails to specifically teach a rotational dewatering speed of 150-300 rpm. It would have been obvious to one of ordinary skill in the art at the time of the invention to optimize such a rotational speed to achieve the

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best rotation for the specific size of that apparatus, the type of load being washed therein, and for achieving optimal vibration-reduction. It has been held that discovering an optimum value of a result effective variable involves only routine skill in the art. *In re Boesch*, 617 F.2d 272, 205 USPQ 215 (CCPA 1980).

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Jeon et al. herein referred to as "Jeon" (US Patent No. 6,401,284). Jeon teaches a method for controlling washing during spinning in a tilt-type washing machine for attenuation of vibration, including (a) laundry disentangle alternately rotating step for alternately rotating the inner tub to eliminate the eccentricity of the laundry in the inner tub before the water discharge step, and (b) a determining step either for carrying out a control pattern to eliminate the eccentricity of the laundry if the eccentricity of the laundry after step (a) is greater than a preset value, or for proceeding to the water discharging step if the eccentricity of the laundry after step (a) is smaller than the preset value, whereby attenuating the vibration to the minimum (abstract). Jeon reinforces the concept that vibration is caused by the eccentricity in the spinning step (dewatering) and is a related art problem that can be prevented in advance by monitoring eccentricity (col. 6, lines 3-16).

**Conclusion**

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Rita R. Patel whose telephone number is (571) 272-8701. The examiner can normally be reached on M-F: 8-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Barr can be reached on (571) 272-1414. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

RRP

  
MICHAEL BARR  
SUPERVISORY PATENT EXAMINER